

WHAT IS CLAIMED IS:

1. A fluid injection apparatus for use with a syringe, the fluid injection apparatus comprising:

an injector comprising a housing defining a front opening therein and a drive piston extendible through the front opening of the housing for imparting motive force to a plunger disposed within the syringe; and

a pressure jacket assembly operably associated with the housing for substantially enclosing the syringe during an injection procedure, the pressure jacket assembly comprising:

a jacket cylinder comprising a rear end coupled to the injector housing and an open front end for receiving the syringe therethrough;

at least one support member comprising a rear end pivotally coupled to the injector housing and a front end; and

a front member pivotally coupled to the front end of the at least one support member, wherein the front member is pivotable between a closed position for retaining the syringe within the jacket cylinder and an open position for allowing the syringe to be inserted into and removed from the front end of the jacket cylinder.

2. The fluid injection apparatus of Claim 1 wherein the front member is adapted to engage a front wall of the syringe to retain the syringe within the jacket cylinder.

3. The fluid injection apparatus of Claim 51, further comprising a second support member having a rear end and a front end, the rear end of the second support member being pivotally connected to the injector housing.

4. The fluid injection apparatus of Claim 3 wherein the front end of the second support member is pivotally connected to the front member.

5. The fluid injection apparatus of Claim 3, further comprising a second front member connected to the front end of the second support member, wherein the second front member is pivotable between a closed position for retaining the syringe within the jacket cylinder and an open position for allowing the syringe to be inserted into and removed from the jacket cylinder.

6. The fluid injection apparatus of Claim 5 wherein the front member and the second front member cooperate to retain the syringe within the jacket cylinder.

7. The fluid injection apparatus of Claim 1 wherein the front member defines a slot for receiving a neck of the syringe.

8. The fluid injection apparatus of Claim 1 wherein the at least one support member comprises a tie rod.

9. The fluid injection apparatus of Claim 4 wherein the front member defines a slot for receiving a neck of the syringe.